

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------------|----------------------|---------------------|------------------|
| 10/006,705 | 12/10/2001 | Eiji Ujyo | 1095.1205 | 3637 |
| 21171 75 | 1171 7590 10/19/2005 | | EXAMINER | |
| STAAS & HALSEY LLP | | | BENGZON, GREG C | |
| SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | ART UNIT | PAPER NUMBER |
| | | | 2144 | • |

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|---|-----------------------------------|--|--|--|--|
| | 10/006,705 | UJYO ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Greg Bengzon | 2144 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address | | | | | | |
| Period for Reply | (10.0FT TO EVOIDE - 1.0A)TIL | O) OD TUBER (00) DAY | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | |
| Status | | • | | | | |
| 1) Responsive to communication(s) filed on 13 Ju | ly 2005. | | | | | |
| 2a)⊠ This action is FINAL . 2b)☐ This | · | | | | | |
| 3) Since this application is in condition for allowan | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under E | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) <u>1-3,6-8 and 13-15</u> is/are pending in th | 4)⊠ Claim(s) <u>1-3,6-8 and 13-15</u> is/are pending in the application. | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-3,6-8 and 13-15</u> is/are rejected. | | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or | election requirement. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)☐ All b)☐ Some * c)☐ None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | | | | | | |
| | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) | 4) Interview Summary | | | | | |
| Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other: | te atent Application (PTO-152) | | | | |
| S. Patent and Trademark Office | | | | | | |

This application has been examined. Claims 1-3, 6-8, 13-15 are pending.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The effective date of the subject matter claimed in the application is December 18, 2000.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 6-7, 13-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear regarding the subject matter being claimed, as the preamble contains references to a 'computer-readable record medium that stores a program' while the body of the Claim is describing a 'process'.

Claim 1 recites the limitation "generating unit" and "said determining unit". There is insufficient antecedent basis for this limitation in the claim.

Claims 2-3, 6-7 are rejected on the basis of their dependency on Claim 1.

Claim 13 is unclear regarding the subject matter being claimed, as the preamble contains references to a 'computer-readable record medium that stores a program' while the body of the Claim is describing a 'process'.

Claims 14-15 are rejected on the basis of their dependency on Claim 13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-8, 13-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Gemmell (US Patent 6678855) in view of Chiu et al (US Patent 6505253), hereinafter referred to as Chiu.

Gemmell disclosed (re. Claims 1, 8, 13) generating groups of data, each including at least one data packet from a given set of data packets to be delivered (Gemmell – Figure 15, Column 4 Lines 40-45); (re. Claims 1, 8, 13) repeating delivery of each of the groups as many times as specified by said determining (Gemmell – Column 2 Lines 25-35, Column 7 Lines 25-30); (re. Claims 1, 8, 13) determining a number of times each of the groups is delivered; (Gemmell – Column 7 Lines 25-30,

Column 12 Lines 40-45); (re. Claim 13) specifying a number of delivery destinations to which data is to be delivered (Gemmell – Column 7 Lines 1-5); (re. Claim 14) further comprising repetitively delivering the groups before the delivery destinations respond to delivery (Gemmell – Column 7 Lines 25-30); (re. Claim 15) wherein a number of times each of the groups generated by the group generating unit is delivered is greater than one (Gemmell – Column 7 Lines 25-30, Column 12 Lines 40-45); (re. Claim 2) wherein the group generating determines a number of data packets included in each group (Gemmell – Column 3 Lines 55-60); (re. Claim 3) wherein the group generating unit determines the total amount of data included in each of data packets included in each group according to the state of a communication line or delivery destination (Column 14 Lines 15-60, Column 39 Lines 30-50).

With respect to Claim 13, Gemmell did not disclose estimating a processing time required to handle each single response from the delivery destinations calculating a total response processing time; delivering control information including the total response processing time, to the delivery destinations so that the delivery destinations will respond at a randomly selected timing within the total response processing time after each group of data packets are received. With respect to Claim 2, Gemmell did not disclose wherein the group generating determines a number of data packets included in each group according to a state of a communication line or delivery destination.

Application/Control Number: 10/006,705

Art Unit: 2144

Regarding Claim 6, Gemmell did not disclose measuring a congestion state of a system based on time needed for accessing a memory and the state of the load on a processor. Regarding Claim 7, Gemmell did not disclose redelivering a previously delivered data packet when one of the delivery destinations has reported that the data packet could not be received.

Chiu disclosed a rate control mechanism for multicast transmission. Chiu disclosed (re. Claim 13), estimating a processing time required to handle each single response from the delivery destinations; (Chiu – Column 39 Lines 30-35) (re. Claim 13) calculating a total response processing time; (Chiu – Column 35 Lines 60-65, Column 39 Lines 30-35) (re. Claim 13) delivering control information (Chiu- Figures 12 and 24, Column 6 Lines 55-60, Column 39 Lines 30-35) including the total response processing time, (Chiu – Column 35 Lines 60-65, Column 39 Lines 30-35) to the delivery destinations so that the delivery destinations will respond at a randomly selected timing within the total response processing time after each group of data packets are received; (re. Claim 2) wherein the group generating determines a number of data packets included in each group according to a state of a communication line or delivery destination (Chiu – Column 13 Lines 25-40, Column 15 Lines 49-50); (re. Claim 6) measuring a congestion state of a system based on time needed for accessing a memory and the state of the load on a processor (Chiu - Figures 5-6, Column 13 Lines 40-50, Column 15 Lines 45-50); (re. Claim 7) redelivering a previously delivered data

packet when one of the delivery destinations has reported that the data packet could not be received. (Chiu – Column 16 Lines 20-25)

Gemmell and Chiu are analogous art because they present concepts and practices regarding reliable transmission methods for multicasting, while accounting for the congestion rates in the network. (Gemmell – Column 1 Lines 45-50, Column 4 Lines 15-25, Chiu – Column 11 Lines 60-65) At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Chiu into methods and system of Gemmell. The suggested motivation would be, as Chiu suggests (Chiu – Column 9 Lines 35-40), the transmission rate should be high so as to fully use the bandwidth of the network, and should be sufficiently low that packets are not lost due to congestion, or to the inability of a receiver station to keep up with the transmitter.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The Examiner's Objection to Claim 7 is withdrawn.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcb

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100